

ENERGY STAR® QUALIFIED PROGRAMMABLE THERMOSTATS

CONSUMER BENEFITS

- When used properly, an ENERGY STAR qualified programmable thermostat can save consumers \$100 a year.
- ENERGY STAR qualified programmable thermostats automate heating and cooling settings and offer convenience and comfort.
- ENERGY STAR qualified programmable thermostats meet stringent guidelines to ensure quality and accuracy. (see table 1)

Table 1. ENERGY STAR Criteria		
	Current Criteria	Future Changes
ENERGY STAR	<ul style="list-style-type: none">• Accuracy of +/- 2 degrees• 4 program periods per day for energy saving setbacks/setups• Heat pump recovery (allows the heat pump to recover gradually, minimizing on-time and reducing use of back-up electric resistance)	Revision Underway

Note: Unlike other ENERGY STAR qualified products, programmable thermostats do not use energy themselves, rather they save energy through controlling HVAC equipment through setbacks/setups.

UTILITY COST EFFECTIVENESS DATA

- Average product lifetime: 15 years¹
- Average price for ENERGY STAR Programmable Thermostat: \$45²
- 1999 sales: \$212.5 million (with an estimated 3% increase in sales each year)³
- Average saturation of programmable thermostats in residential housing: 28%⁴
- 2004 Estimated Revenue: \$253.6 million⁵

MARKET SNAPSHOT

Table 2: ENERGY STAR Programmable Thermostat Partners and Associated Retail Stores	
Retailer	Brands
Ace Hardware	Honeywell, Lux
Lowe's	Honeywell, Hunter
The Home Depot	Honeywell, Hunter, Golden Power (Rite Temp, THD brand)

- Most programmable thermostats are installed when consumers replace their HVAC equipment. Manufacturers have stated that the sales for installation (contractor) vs. retail are approximately 80% installation, 20% retail.
- The bulk of retail sales are through home centers, with a smaller proportion sold at hardware and other stores. The retail channel obtains the majority of its revenues from replacement. The contractor channel, on the other hand, covers installations of new product as well as replacement. The brands sold at the major retailers are shown in table 2.
- The October, November, and December are the strongest months for thermostat sales. July, August, and September are also strong sales months.

¹ Climate Change Action Plan, LBNL, April 2005

² Frost and Sullivan, North American HVAC and Thermostat and Temperature Control Markets, 2000

³ Frost and Sullivan, North American HVAC and Thermostat and Temperature Control Markets, 2000

⁴ IMR, 1999 Q4, 2000 Q1-3

⁵ Frost and Sullivan, North American HVAC and Thermostat and Temperature Control Markets, 2000

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- Electronic thermostat sales are expected to see “healthy growth” as this product penetrates the market and overcomes sales for manual thermostats⁶. Growth will be an outcome of: energy conservation initiatives, new construction, and replacement of old devices.

Table 3. Programmable Thermostat Market Share by Census Region (Installed Units)⁷	
Region	Percentage
East North Central/New England	25%
Mid Atlantic	19%
South Atlantic	14%
Pacific	12%
Mountain	10%
West South Central	9%
West North Central	7%
East South Central	4%

⁶ Frost and Sullivan, North American HVAC and Thermostat and Temperature Control Markets, 2000

⁷ IMR, 1999 Q4, 2000 Q1-3